

Modular Transformation: The Unintended Impacts on Leadership and Organizational Effectiveness

by

Lieutenant Colonel Andrew T. Rendon
United States Army



United States Army War College
Class of 2013

DISTRIBUTION STATEMENT: A

Approved for Public Release
Distribution is Unlimited

This manuscript is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
<p>The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.</p>					
1. REPORT DATE (DD-MM-YYYY) xx-03-2013		2. REPORT TYPE STRATEGY RESEARCH PROJECT		3. DATES COVERED (From - To)	
4. TITLE AND SUBTITLE Modular Transformation: The Unintended Impacts on Leadership and Organizational Effectiveness				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Lieutenant Colonel Andrew T. Rendon United States Army				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Professor Leonard J. Fullenkamp Department of National Security and Strategy				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army War College 122 Forbes Avenue Carlisle, PA 17013				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Distribution A: Approved for Public Release. Distribution is Unlimited.					
13. SUPPLEMENTARY NOTES Word Count: 7493					
14. ABSTRACT <p>The Army experienced early success with transformation in the 1990s with Force XXI and the creation of the Stryker Brigades. After 2003, however, modular transformation was expedited at an alarming rate and scale resulting in catastrophic long term consequences for the Field Artillery. Popular demands for creative new concepts in force redesign contributed to a service wide failure to adhere to core principles of leadership, mission command, and span of control. Time proven organization structures such as the Division Artillery (DIVARTY) were relegated as a redundant echelon of command and became a bill payer to the new landpower design. In sharp contrast, the USMC maintained a deliberate and disciplined approach to modernization. This approach was based on strict adherence to the same core principles the Army was quick to ignore. Employment of artillery in Operation Enduring Freedom provides an excellent case study of why the USMC met with much success in building adaptive Fire Support leaders in comparison with the Army. The paper provides recommendations to enhance the effectiveness of the Field Artillery in the future.</p>					
15. SUBJECT TERMS Field Artillery, Fire Support, Modularity					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 38	19a. NAME OF RESPONSIBLE PERSON
a. REPORT UU	b. ABSTRACT UU	c. THIS PAGE UU			19b. TELEPHONE NUMBER (Include area code)

USAWC STRATEGY RESEARCH PROJECT

**Modular Transformation: The Unintended Impacts on Leadership and
Organizational Effectiveness**

by

Lieutenant Colonel Andrew T. Rendon
United States Army

Professor Leonard J. Fullenkamp
Department of National Security and Strategy
Project Adviser

This manuscript is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

Abstract

Title: Modular Transformation: The Unintended Impacts on Leadership and Organizational Effectiveness

Report Date: March 2013

Page Count: 38

Word Count: 7493

Key Terms: Field Artillery, Fire Support, Modularity

Classification: Unclassified

The Army experienced early success with transformation in the 1990s with Force XXI and the creation of the Stryker Brigades. After 2003, however, modular transformation was expedited at an alarming rate and scale resulting in catastrophic long term consequences for the Field Artillery. Popular demands for creative new concepts in force redesign contributed to a service wide failure to adhere to core principles of leadership, mission command, and span of control. Time proven organization structures such as the Division Artillery (DIVARTY) were relegated as a redundant echelon of command and became a bill payer to the new landpower design. In sharp contrast, the USMC maintained a deliberate and disciplined approach to modernization. This approach was based on strict adherence to the same core principles the Army was quick to ignore. Employment of artillery in Operation Enduring Freedom provides an excellent case study of why the USMC met with much success in building adaptive Fire Support leaders in comparison with the Army. The paper provides recommendations to enhance the effectiveness of the Field Artillery in the future.

Modular Transformation: The Unintended Impacts on Leadership and Organizational Effectiveness

As to methods there may be a million and then some, but principles are few. The man who grasps principles can successfully select his own methods. The man who tries methods, ignoring principles, is sure to have trouble.

—Ralph Waldo Emerson

As the United States Army enters an era of declining budgets and reduced resources, well-intended experts will make the case for new and creative ways to transform the Army. If past experience is any guide, these ways will likely include clever organizational redesigns and force structure changes. As the Army draws down it would do well to proceed with caution and not repeat the mistakes of past transformation efforts, in particular the most recent errors attendant to the “modular” transformation efforts of the past ten years. Army redesign processes can be unforgiving when false or erroneous assumptions and even simple miscalculations can have catastrophic second and third order effects that are slow to be seen and can take years to identify and correct. This paper will examine the unintended consequences of the Army’s most recent effort at “modular” transformation, with emphasis on its negative impact on leadership and leader development in one branch in particular, the Field Artillery.

Modular Transformation Background

Army transformation usually follows the end of a war or an era. Post World War II, the Army transformed its organizations, formations, structures and equipment to fight and survive on the nuclear battlefield. The “Pentomic” Divisions were short lived as the practical considerations of fighting “tactical nuclear wars” made lie of the fundamental proposition. With the coming of the Vietnam War again the Army initiated another effort at transformation, this time remaking itself into a superb organization for fighting a low-

intensity guerilla war in a tropical Pacific Rim nation. Unfortunately in its pursuit of excellence in one venue it allowed its skills to atrophy in another. Army transformation to fight in Vietnam rendered the Army unsuited for warfare in Western Europe where the Cold War forces of the Soviet Union were the likely foe. Following the Vietnam War again the Army underwent transformation, this time guided by Air Land Battle Doctrine. New equipment (Abrams tanks, Bradley fighting vehicles, Apache and Blackhawk helicopters, and Multiple Launch Rocket Systems), innovative training concepts Army Readiness and Training Evaluations (ARTEPS), and leader development programs (Basic and Advanced Noncommissioned Officer training programs, Sergeants Major Academy, Combined Arms Staff Studies Schools, etc), together with a rededication to stringent recruiting and retention standards combined over a decade to transform the Army into what many considered to be “the best Army in the world.”¹ Operational excellence in combat during Desert Storm, 1991, validated this accolade. Ironically, at this same time the collapse of Communism and the Soviet Union dissolution set in motion forces that would compel the Army to once again transform itself. With the end of the Cold War, declining defense budgets and pent up demands for what came to be called a “peace dividend” once again set the Army to the task of transformation.

The architect and the intellectual energy for post-Cold War transformation in the Army belonged, in 1994, to General Gordon R. Sullivan, the Army Chief of Staff. General Sullivan was ideally equipped by experience and disposition to supervise the process. His extensive experience in combat units and in Training and Doctrine Command (TRADOC) assignments enabled him to visualize and conceptualize the transformation process and to then articulate that process to the various constituencies,

including the Congress, the Joint Force, the Army, and the American people. Using the metaphor, “Louisiana Maneuvers,”² he initiated a transformation process designed to create a new force for the new era. He called the force, Force XXI. Force XXI centered on both a redesign of the existing force and also the creation of new ways to leverage technology to enhance the capabilities of that force.³ Although work continued throughout the 1990s on Army transformation, it was still a work in progress when General Sullivan’s term as CSA came to a close. In 1999, the Army Chief of Staff, General Erik K. Shinseki, embraced General Sullivan’s efforts to date, and at the same time redirected transformation efforts along new pathways. William M. Donnelly explains his vision, “General Shinseki established a transformation process that would begin with current [existing] units, designated as the Legacy Force, and move through an Interim Force to what planners termed an Objective Force, the Army of the future.”⁴ The most visible result of General Shinseki’s vision was the creation of the Stryker Brigades. The Stryker Brigades, with a newly designed light armored combat vehicle and innovative training concepts, represented the first step at a modern fielded force with organic combined arms capability at the brigade level only resident previously in the much heavier Armored Cavalry Regiments (ACRs).⁵ Similar to ACRs, Stryker Brigades had organically assigned elements that provided combat support and combat service support capabilities resident in the unit.

Significant problems with the Army’s road to modular transformation began after the appointment of General Peter J. Schoomaker as Army Chief of Staff in 2003. General Schoomaker believed in modular transformation and tasked TRADOC to lead the majority of the project. TRADOC developed Task Force Modularity and immediately

began work on the project with General Schoomaker's guidance. "Schoomaker's stress on speed and a belief on the part of the [TRADOC taskforce] members that few problems would develop led the task force's leaders to expect that the project would last only three or four months."⁶ Among the many unforeseen problems, those having to do with personnel eventually became the most troublesome. Modular unit commanders were confronted with leadership challenges in the areas of training and career development that proved daunting, especially where low-density military occupational skills (MOSs) were concerned. Not only was the modular unit commander responsible for the training and development of core MOSs (infantry and armor) but a long list of supporting MOSs, to include Artillery, Signal, Engineer, Intelligence, and so forth, demanded attention. Working shorthanded, and under pressure of insufficient time for adequate study, these problems were not recognized, nor were they made apparent to the Army's senior leadership. "In an unusual arrangement for a force development project, Task Force Modularity operated under "close hold" while it was formulating its initial designs during 2003 and 2004."⁷ General Kevin Byrnes, the TRADOC commander, limited information that was shared with the institutional Army for fear of parochialism and unnecessary delays. The Army leadership made the assumption that the schoolhouses were only capable of providing biased parochial advice. "General [Robert] Mixon, as a result, would only brief the schools' commandants in February 2004, after the chief of staff had approved the design for the heavy brigade combat team and concepts for other modular organization."⁸ These fears would manifest themselves years later as the schoolhouses sponsored multiple Force Design Updates (FDUs) to correct the problems created by the work of Task Force Modularity. With the

best of intentions the various branch schools proffered changes in force design, training requirements and standards, among other innovations, all of which were not coordinated across TRADOC, all of which contributed to complications on the road to modularity.

Further complicating the modular transformation process, various subject matter experts came forward professing their ideas on creative force redesign, training, education, and so on. Chief among this group was Douglas A. Macgregor. Macgregor, a former Army cavalryman with experience in an ACR, was a staunch advocate for force redesign, but in a way that reflected his personal background and experience. In his book, *Breaking the Phalanx*, Macgregor challenged the validity of the current organizational structure of the brigade combat teams (BCTs). Macgregor asked, “Why preserve the existing industrial age command and control structure: company/battery/troop-battalion/squadron-brigade/regiment-division-corps-army?”⁹ Instead, he advocated an ACR-like modular BCT that was a permanent restructure for the Army. The redesign included several basic tenants including: a deactivation of what was regarded as redundant echelons of command primarily at the division level, and, most significantly, empowering brigade level commanders with permanent organizational structure and capability. Macgregor offers insights into his force redesign, “What the Army needs is a warfighting organization with form that parallels the shift of warfighting functions and activities to progressively lower levels.”¹⁰ Although Macgregor’s comments resonated with many in Army leadership and force design staffers, a closer look at the ACR model should have raised serious concerns in a

number of areas, and especially with the validity of key assumptions concerning the merits of “command echelon reduction” and span of control.

The construct of an ACR is a good example of a unique combat force organized for a specific mission set. Doctrinally, the ACR was tailored to accomplish a specific set of tasks, and was never designed to be the base model for all conventional brigade combat teams in the US Army.¹¹ With modular transformation, the US Army inadvertently, but deliberately, exported the inherent and pre-existing problems in the ACR construct to the entire Army on a much larger scale.¹² What were known problems with training and leader development in non-maneuver elements, resident in the ACR, were now manifestly significant issues in the newly created modular BCTs. From an operational employment point of view, the modular Brigade Combat Team (BCT) looks very appealing. The BCT, much like the ACR, has a tremendous organic capability that enables the force to accomplish a diverse mission set. However, when one looks beyond employment, and examines the unit organization and design using the elements of the Doctrine, Organization, Training, Material, Leadership, Personnel, Facilities (DOTMLPF) construct, the models begin to show significant flaws as a viable permanent construct for conventional BCTs. Although the flaws as described above are many, this essay will focus only on leadership, training, and personnel problems in general, and on those impacting the Field Artillery in particular. The best explanation of the negative 2nd and 3rd order effects of modular transformation on the Field Artillery may be found in a white paper entitled “The King and I” written in 2007.

Statement of the Problem

“The King and I” white paper was a professionally astute assessment of the negative effects of modular transformation on the Field Artillery. It was written by three former brigade commanders, Colonels Sean MacFarland, Michael Shields, and Jeffrey Snow. The authors came from diverse backgrounds and commanded three different types of brigade combat teams including an Infantry (IBCT), Stryker (SBCT), and heavy (HBCT).¹³ The white paper outlined three major deficiencies with BCT modularity: inadequate Field Artillery leader development, a gap in command and control headquarters structure (Colonel- level headquarters) for Field Artillery units, and inadequate fire support and field artillery training.¹⁴ These deficiencies were a direct result of the unintended consequences of modular transformation. In many respects the white paper was a strategic risk assessment of the impending personnel management, career development, and training crises unfolding as a result of modularity. MacFarland, Shields, and Snow reached the somber conclusion, “With each passing month that we continue to let these perishable skills atrophy and lose our expert practitioners, we are mortgaging not only flexibility in today’s fight, but our ability to fight the next war as well.”¹⁵

Leadership and Leader Development

The most significant drawback associated with modular transformation for the Field Artillery was the unintended negative impact on leadership and leader development. The inactivation of the Divisional Field Artillery Headquarters (DIVARTYs) created a gap in the leader development of Field Artillery personnel of all grades; officers, NCOs, and Soldiers. Headquarters Department of the Army (HQDA) eventually came to recognize the problem and went on to describe this gap in the Force Design

Update (FDU) that was eventually promulgated to correct this deficiency: “Areas of significant concern are effectiveness of integrating fires at Division, Corps, and Theater level; training oversight of Fires Bns [sic] in the BCTs; critical fire support and Field Artillery (FA) systems certifications; leader development; and unified action partner integration.”¹⁶ The Army can correct a broad range of BCT-related deficiencies in most of the DOTMLPF categories with some strategic thought and allocation of resources to the problem. What is not easily fixed is a generation of leadership that does not possess the expert knowledge expected of them based on rank and position. MacFarland, Shields, and Snow describe this lack of leader development and its impact:

But where are the senior mentors in the field artillery community to guide the development of mid-grade officers? As mentioned earlier our experience bears out that the best artillerymen are superb integrators of all the elements that comprise a BCT, and the very best are more than capable of commanding at the next level. Unfortunately, as we mentioned earlier there are only six artillery brigades left in the whole active army. A branch with a built in glass ceiling is not likely to retain or attract the best and the brightest.¹⁷

Prior to modular transformation, the DIVARTY commander was responsible for leader development of Field Artillerymen in the divisions. As a Colonel-level Centralized Selection List (CSL) selected strategic leader, the DIVARTY commander was the most competent and capable individual with the necessary requisites (training resources) to oversee within the division a leader development program for Field Artillery officers, NCOs, and Soldiers. Resident in the DIVARTY headquarters were subject matters experts in field artillery and fire support which enabled the commander to provide oversight and ensure standardization across the division. Modular transformation did away with the DIVARTY headquarters and organization, and with this inactivation, came the eventual breakdown, indeed some would even say collapse, of Field Artillery leader

development. Worse still was the erosion and decline of expert knowledge trained and experienced Artillerymen formerly possessed as a matter of routine, a calamity that was quickly manifested in training deficiencies in core competency.

Lack of Enlisted Leader Development (MOS - 13F, Fire Support Specialist)

The circumstances that resulted in the breakdown of leader development within the Field Artillery branch, as described in “The King and I” white paper was not limited to officers. Transformation also had a negative impact on the 13F (Military Occupational Specialty - Fire Support Specialist) Soldiers and NCOs. Modular transformation called for a permanent, standing task-organized force, without regard for the human dimension of leadership and career development for non-maneuver Soldiers. Formerly assigned to, and under the span of control of the Field Artillery battalion, under transformation 13F MOS personnel were reassigned to maneuver (BCT) units. Maneuver leaders, skilled Infantry or Armor branch officers and NCOs, received no additional training prior to modular transformation that prepared them to assume the responsibilities for training and developing 13F personnel. Moreover, BCT commanders did not have the benefit of senior 13 series enlisted advisors to assist with training and enlisted personnel management, which remained resident in the Field Artillery Battalion.

This misalignment of command responsibilities and leader/skill development requirements was also evident in the career development path of Fire Support Specialists. As the 13F developed he remained almost exclusively assigned in maneuver units until such time as he attained the rank associated with higher levels of leadership responsibilities, such as First Sergeant, Sergeant Major, and Command Sergeant Major – all positions which remained resident in the Field Artillery Battalion. Incredible as it may seem, the first time a 13F NCO would be assigned in a Field

Artillery Battalion would be as a First Sergeant, Master Sergeant, and perhaps a Command Sergeant Major. The reassignment of 13Fs separated, by organizational structure, the most senior 13F Non-Commissioned Officers (NCOs) from the mid-grade and junior 13Fs. This served to deprive junior NCOs and Soldiers of leader development opportunities previously available to them under the DIVARTY system.

In 2012, after almost a decade after modularity began, the Army's leadership approved the BCT Fire Support Reorganization Force Design Update (FDU).¹⁸ In a tacit admission of the problem at hand, this FDU moved the authorization spaces for 13Fs back to the Field Artillery Battalion, where fire support personnel would be ensured of getting the requisite training and experience demanded by higher levels of responsibility. Although approved in concept by the Commanding Generals of both the Maneuver Center of Excellence and the Fires Center of Excellence,¹⁹ there was significant resistance to this FDU from maneuver IBCT [Infantry BCT] commanders, who saw the FDU as a step backward. In general, BCT commanders, taking a maneuver centrist view from their command perspective, failed to acknowledge the fundamental problems with modularity in the area of low and medium density training and development.²⁰ Instead, these commanders insisted the problems could be fixed at the BCT commander level through creative use of techniques such as consolidation of 13Fs, redefining leader responsibilities at or below the BCT commander level, and creative use of the new innovative concept of training readiness authority/and training readiness oversight. Although the FDU cited above has been approved by HQDA, it has yet to be implemented in Field Artillery Modified Table of Organization and Equipment (MTOE).

Span of Control in Modular Transformation

After transformation, modular BCT commanders and their staffs quickly faced a multitude of new and challenging tasks while simultaneously preparing for frequent and recurring deployments to Iraq and Afghanistan. Maneuver commanders and their staffs received no additional training to equip them for the additional responsibilities associated with training and development of low and medium density MOSs. The senior Field Artillery officers and NCOs in the division, formerly resident at the DIVARTY headquarters, were reassigned after these headquarters were inactivated, and their responsibilities were in large part unfilled and abandoned. This misfortune was alluded to in the recently approved FDU for additional Fires Brigades. Writing candidly and directly, Headquarters, Department of the Army provided historical background and context on the mistakes made during modular transformation:

In the past, the Division Artillery (Div Arty) and the Corps Artillery filled both the Training Readiness Authority (TRA) and Force Field Artillery (FFA) HQ roles. When these formations were removed from the Army structure, these requirements still existed – but a replacement capability was not developed. It was assumed that BCTs could provide sufficient TRA for their organic fires battalions (and mortars) and that a small number of Fires Brigades (FIBs) could function as a FFA HQ for a greater number of divisions, Corps and joint/theater headquarters. Operational experience is revealing that these assumptions were not valid.²¹

Complicating the problem associated with training of field artillery core competencies was a degradation of skills brought on by repeated deployments where Field Artillery branch personnel were called upon to perform a wide array of non-artillery (read branch immaterial) missions such as convoy security, point defense security, and a host of other counter-insurgency-related tasks. Building and sustaining artillery training competency under these circumstances would have been difficult enough under the DIVARTY structure, but under the newly organized modular BCT system it led to an

unacceptable atrophying of basic branch skills. The BCT commanders and their staffs, formerly tasked with all things maneuver, now found the requirement to maintain branch proficiency for their low and medium density MOSs demanded far more time and expertise than they had or could afford. In sum, the modular BCT commanders' span of control and scope of responsibilities had simply become too great. Elizabeth A. Stanley and G. F. Deimel warn us of the inherent dangers associated with reducing command echelons thought to be redundant:

First, eliminating command echelons implies that the span of control for senior leaders necessarily increases, thus reducing their ability to supervise their subordinates. Possessing the informational wherewithal to dispense with echelons does not in itself give the higher commanders the additional time and opportunity required to interact personally with additional subordinate commands. While technological development may streamline processes and facilitate interaction in some instances, leaders will be hard pressed to find a substitute for individually tailored professional interactions with subordinates, particularly mentor relationships.²²

Although the interaction did not disappear under modular transformation, the vast span of control of the singular modular BCT commanders has proved to be substantially larger and more complex than that common to brigade-level commanders in the pre-modular era. The current BCT organizational structure of 6 battalions appears to violate our own doctrine of Mission Command which stipulates, "Generally, commanders can effectively command and effectively control two to five subordinate headquarters. A commander's span of control should not exceed that commander's capability to command effectively."²³ While there is no dispute of a BCT commander's ability to synchronize and integrate warfighting functions, little deference is given to peer functional unit commanders in their ability to train specific expert knowledge within their branch and warfighting function.

Pre-modular Field Artillery Training Readiness

Macfarland, Shields, and Snow make a very good argument for what they call an “Impending Crisis in the Field Artillery.” They state, “As maneuver commanders, with only limited technical expertise in putting high explosive projectiles in the air over our heads, this is a source of concern for us.”²⁴ We have only to look at a small sample of Field Artillery training readiness to quickly understand why the maneuver commanders are correct about the nature and scope of the crisis and why the Army’s senior leadership should be very concerned. For example, if one looks at a four-year sample (FY 99-2002) of Field Artillery training readiness in terms of firing incidents at the National Training Center a significant deterioration of basic gunnery skills becomes evident in the frequency and severity of such incidents. A firing incident may be defined as a tactical firing error made by an artillery unit resulting in artillery rounds impacting in a location other than the intended location. During the above cited years, National Training Center (NTC) rotation training scenarios focused on high intensity combat operations, with a base model of 10 day force-on-force training followed by 4 days of live fire operations. NTC field artillery live fires included many elements of realistic combat operations, such as non-standard impact areas, and the additional stress and friction endured by participating units as a result of simulated combat conditions. During a four year period, there were a total of 105 firing incidents by Field Artillery units with an average error of 1,917 meters off the target.²⁵

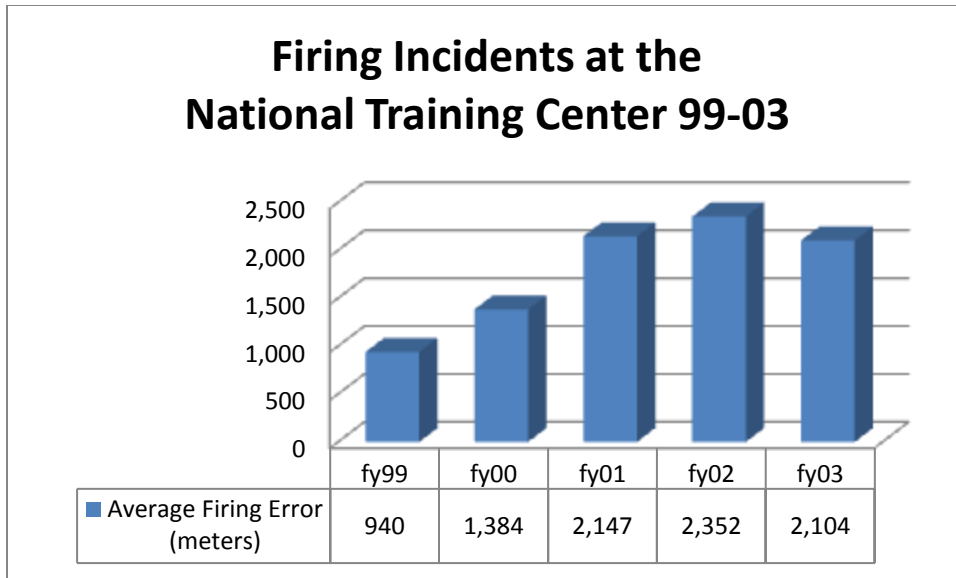


Figure 1 Firing Incidents at NTC

The sample of Field Artillery training readiness cited above was taken before Operation Iraqi Freedom, and during a time when extremely stringent DIVARTY supervised and executed certifications were the standard. This was at a time when the “Delivery of Fires” was the primary core Mission Essential Task List (METL) task of the DIVARTY and its Field Artillery battalions. Although these errors are substantial, logic suggests that core Field Artillery training proficiency should be higher before OIF and OEF and before modular transformation. A closer look is necessary to truly develop an understanding of the core proficiency that was lost under modular transformation.

The data point of firing errors at the NTC is primarily indicative of two things. First, NTC live-fires were demanding and realistic training exercises that rigorously tested and measured the fires proficiencies of Field Artillery battalions and their leaders. Rotations at the National Training Center were world class training events unlike any other. Often firing incidents at the NTC, a direct result of the demanding conditions under which the firing exercises were conducted, were the only such incidents a firing

unit would experience during a battalion commander's tenure. Although reflective of training deficiencies, the incidents also reflect a "training rheostat" that pushed units to their limits under the watchful eye of seasoned Field Artillery observer/controllers (OCs). Second, one sees clearly that MacFarland, Shields, and Snow were correct when they observed that "the business of putting high explosive projectiles in the air is one best trained by field artillerymen."²⁶ This involves not just a substantial institutional investment, but a substantial operational investment and framework at home-station that is more than just a Lieutenant Colonel-level fires battalion commander with no senior artillery mentorship or headquarters to assist him. The Army TRADOC Commander, General Cone recently commented on overall army training readiness. General Cone stated, "One of the things this generation doesn't want to hear is get back to the basics, because I'm here to tell you, basics weren't all that good. We gotta [sic] do better."²⁷ In 2013, one way we can do better is to begin to get back to where we were in a pre-modular force with established, proven, and time-tested frameworks for both the generating and operating force.

Field Artillery Organization for Combat – Operation Enduring Freedom

Perhaps the most readily apparent indicator of the breakdown of Field Artillery under modular transformation can be seen in the woefully inadequate Field Artillery "Organization for Combat" employed by the Army in OEF. Despite the urgent need for surface-to-surface precision guided munitions in Afghanistan, the Army failed to deploy a single General Support (GS) artillery battalion with this capability to the theater. Often operations in Afghanistan placed a premium on extended range fire support with some Fires Battalions shooting in excess of 16,000 conventional artillery rounds during a single deployment.²⁸ The best solution the Army was able to develop in over 12 years of

war was to resource two General Support (GS) 155mm Firing Batteries in support of RC (Regional Command) East and one High Mobility Artillery Rocket System (HIMARS) battery in support of Special Operations forces across all of Afghanistan. Operation Enduring Freedom may be remembered as the only war in modern times without the employment by the Army of a single GS artillery battalion to serve in its wartime mission.

By contrast, the USMC was very successful not only integrating GS Artillery but also in their employment of surface to surface Precision Guided Munitions (PGMs). Figure 2 shows the usage of the artillery delivered Excalibur PGM for both the Army and USMC. Using 2009 as the baseline for comparison, the USMC experienced an increase of 12.2 times their baseline in 2011 after only 2 years of Excalibur employment. The Army took three years to achieve a substantial increase with a peak of only 2.3 times baseline in 2012. Employment of precision munitions provides an excellent case study in the degree of adaptability of Army and USMC forces to the complexity of PGM employment. In a multitude of ways the employment of Precision Guided Munitions (PGMs) is more complicated than that of conventional munitions and heavily dependent on three crucial factors. First, it is dependent on determining strike approval and establishing a framework that does not unduly restrict lower echelon commanders from employing fire support. Second, it is dependent upon a determination of Positive Identification (PID) and an interpretation of Rule of Engagement (ROE) and tactical directives which enable the commander to employ the asset. Third, use of PGMs is heavily dependent upon the organization's ability to clear airspace in a timely manner.²⁹

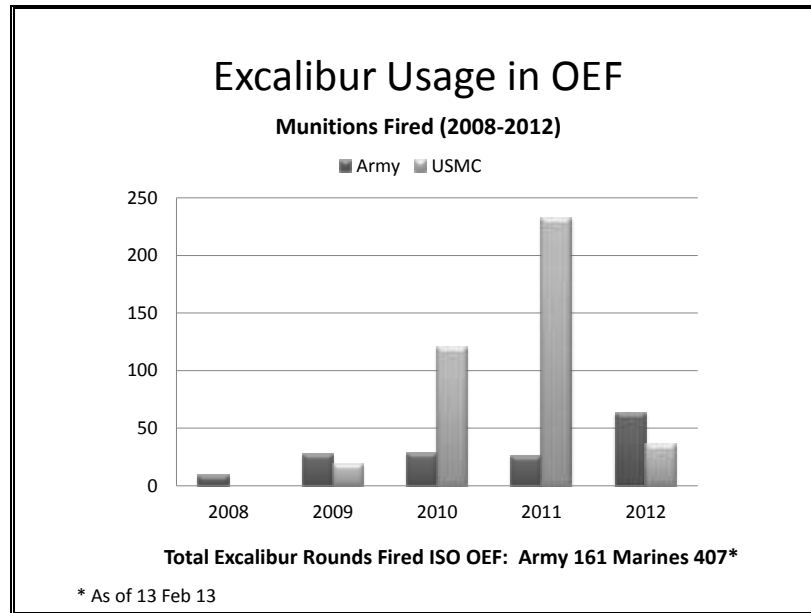


Figure 2: Excalibur Usage in Operation Enduring Freedom³⁰

Between 2009 and 2011, the exponential increase in Excalibur missions can be characterized by the tremendous adaptability of the Fire Support architecture in the USMC. Figure 2 also demonstrates that Army usage of Excalibur in OEF is a symptom of a much larger self-inflicted problem with Fire Support. The end result for the Army between 2009 and 2012 was only a very slow and gradual adaptation to the challenges of employing PGMs. The US Army Fires Center of Excellence conducted an assessment of Excalibur Employment in Afghanistan in 2011. The study determined:

One of the most detrimental aspects to surface to surface IDF employment and FSE capability has been the loss of the division artillery (DIVARTY) and or the lack of a deployed force field artillery (FFA) headquarters (HQ). There is no O6-level (colonel) command authority at the CJTF/division level to enforce standardization and certification; share IDF tactics, techniques, and procedures (TTPs); much less advocate for Excalibur or other surface to surface IDF.³¹

Although differences in Mission, Enemy, Terrain and Weather, Troops, Time, and Civil Considerations (METT-TC) prohibit a true direct comparison between the USMC and

the Army, the absence by the Army's force field artillery headquarters was a significant contributing factor to the slow adaptation to the use of Excalibur.

Recommendations

Recommendation #1: Bring back Divisional Fires Brigades

"The King and I" was a credible and painfully honest white paper that resonated throughout the Army. Until publication of this white paper no group of authors had done a better job at depicting the post-modularity problems with the Field Artillery. It is truly fitting that it was written by three maneuver commanders in three different types of BCTs. Upon closer examination, Shields, MacFarland, and Snow reveal the true fix for the problems in the field artillery:

As BCT commanders, we were fortunate to have FA battalion commanders who grew up under the old system and were technically and tactically superb. We had the best of both worlds – highly trained artillery that was fully integrated into our BCTs. Our FA battalion commander and their staffs were highly trained subject matter experts, which meant we didn't have to be.³²

The DIVARTYs of old, with their experienced and dedicated, branch-qualified leaders developed and implemented the institutional and operational framework, or "old system" referenced above. Senior Field Artillery commanders, together with their Command Sergeants Major, developed and produced officers and NCOs of the type that Shields, MacFarland, and Snow describe as "technically and tactically superb."³³ These Fire Support leaders did not come cheap, and the institutional investment to grow them was substantial. If the Army desires to have these Field Artillery leaders, battalions, and firing batteries back in the force, there is only one proven and time tested way to do it – bring Divartys back as Divisional Fires Brigades and give them command authority over their Fires Battalions.

In 2012, the Army approved an additional FDU to reestablish three Fires Brigades. Although the Army is taking the first step on the path to restore excellence in the Field Artillery, it is only a small step. The TRADOC Commander, General Cone, commented recently, “By and large the addition of the Force Field Artillery Headquarters at the Division was essential.”³⁴ This action will begin to realign both the institutional and operational aspects of the Field Artillery. This framework will be established in the division with the restoration of the Colonel-level Field Artillery commander as the senior Fire Support Coordinator (FSCOORD). However, maintaining expert knowledge in the Army is the responsibility of strategic leaders. The two recent FDUs approved by HQDA demonstrate that the Army’s strategic leadership is aware of the shortcomings of the modular transformation strategy for the Field Artillery. The re-establishment of Fires Brigades should not be viewed as an admission that modularity was wrong headed, rather the problems and shortcomings in leader development and training that ensued were in effect a misalignment of ways and means. To achieve the best brigade combat teams our strategy now should be less like the ACR model, of a permanent standing combined arms team, and more like the Marine model of a task organized brigade combat team that maintains the critical and necessary division infrastructure. To achieve the best field artillery units, it is essential to restore command authority to the Divisional Fires Brigades.

True expert knowledge can only be trained and maintained by commanders – the same way the Army has accomplished training in combat arms formations for hundreds of years. Proper span of control will be reestablished with the restoration of the Fires Brigade Commander position. He will be responsible for all aspects of training

readiness, manning, and equipping to maintain fires expert knowledge in the division. Unity of effort will also be re-established across the division as BCT Fires Battalions will benefit from the resourcing of a Fires O6 level Headquarters. Bringing back the DIVARTYs will also serve to restore the balance in Field Artillery leadership. Don Snider asserts, “Knowledge pertaining to people and the human development is the foundation of Army expertise.”³⁵ It is essential for the Army to retain our best leaders and develop and maintain institutional and operational frameworks to enable this retention. Quoting MacFarland, Shields, and Snow, “A branch with a built-in glass ceiling is not likely to retain and attract the best and the brightest.”³⁶ Reestablishing DIVARTYs will restore leader development, career progression, and the human dimension that was disregarded during modular transformation. The DIVARTY will allow the division to benefit from its commander’s well developed executive skill set in fires expert knowledge and serve in the critical billet as one of the ten divisional FSCOORDs.

The current plans to bring O6 level Field Artillery headquarters back to divisions is a significant step in the right direction. It is the number one recommendation in “The King and I” white paper and is a basis to begin to solve the problems associated with the inactivation of DIVARTYs. However, failing to realign the Fires Battalions under command of the DIVARTY endures as a mistake in need of correction. Without command authority, the new Fires Brigades are only an adjustment on the margins of force structure. MacFarland, Shields, and Snow were extremely careful in addressing this potentially contentious topic, “We leave to separate discussions whether there should be some sort of command relationship between the Fires Brigade and the BCT Fires Battalions.”³⁷ Simply creating the headquarters or aligning a Fires Brigade to a

division is not the answer. The FDU which established 3 new Fires Brigades uses terminology such as Training Readiness Oversight and Training Readiness Authority which are non-doctrinal and further serve to misalign our ways with our means.

Recommendation #2: Reestablish Divarty/Fires Battalion Commanders as FSCOORDs

The restoration of Field Artillery commanders as FSCOORDs is paramount to fixing the problems created by modular transformation. Prior to modularity, the doctrinal term FSCOORD and the development over time of the duty position can be considered evolutionary as a term of reference. The Division FSCOORD was the DIVARTY Commander and the most senior Field Artillery commander within the organization. He was singularly responsible to the Division Commander for fire support and the Division's Fires Warfighting Function. As a strategic leader, he was able to align the institutional aspects of the Field Artillery branch with operational requirements. With the FSCOORD responsibility also came authority as a brigade level commander. The CSL-selected Colonel-level Command Team and its headquarters served to align manning, training, and leader development for Field Artillery units and leaders within the division. Perhaps most importantly, the FSCOORD was a commander with authority and responsibility in a commander-centric Army who served as the senior advisor to the Division Commander on fire support. He provided a truthful and honest assessment of the Field Artillery training readiness and possessed the expert knowledge to provide such an assessment. The lack of a true Division FSCOORD has served not only to devalue his advice but to devalue the currency of the advice. We must retain the currency of Fire Support advice to Division Commanders. In an era of reduced resources, it becomes even more critical for the FSCOORD to argue what is truly required for fire support core competency against those who desire to minimize the bill.

At the brigade level, the Fires Battalion commander provided the same oversight of the Fires Warfighting function. Together with his Command Sergeant Major he was responsible for all aspects of his organic field artillery units and its fire supporters, even to and including those detached to supported units. In essence, each FSCOORD had command authority over the complete Fire Support function in his supported brigade. He was completely responsible for the Fires System and his “expert knowledge” as the FSCOORD qualified him to serve as personal advisor to the maneuver commander. In his article “Green Tab to Green Tab Fire Support: The BCT Commander’s Best Fires Asset”, LTG Peter M. Vangjel says,

He is not simply a peer battalion commander within the brigade, but one with a special skill set – he is an expert in lethal and nonlethal fires integration and coordination. He brings other assets and skill sets to the table to help the BCT commander solve current “fire support training gaps” identified by a number of BCT leaders. He would be my recommendation as the BCT commander’s personal fire support advisor.³⁸

LTG Vangjel, as former commander of the Army’s Fires Center of Excellence, touches on the importance of using Field Artillery commanders as FSCOORDs. Reinstating FSCOORDs will reverse the dilution of responsibility of Fire Support training. The Fires Battalion Commander will have unequivocal ownership of fire support training, readiness, certification, standards enforcement, and leader development.

Recommendation #3: Learn from the Marines

After their spectacular success of joint and combined arms operations in initial operations of OIF, Marine Artillery units were quickly faced with many of the same issues that Army Field Artillery units confronted during multiple counterinsurgency deployments. According to Michael Grice in “Resuscitating the King” published in the *Marine Corps Gazette*, “the artillery community fell from the preeminence it enjoyed as

the premier all-weather fires capability of the Marine Corps to the role of force provider for nearly everything except fire support.”³⁹ The Marines also recognized the challenges of developing leaders. Grice goes on to say, “Besides the obvious lack of service to the maneuver units caused by the disconnection of the habitual relationships between infantry and artillery that had existed for decades, the deeper insidious effect is that the Marine Corps now has an entire generation of artillery officers, noncommissioned officers (NCOs), and Marines who know little of nothing of their craft.”⁴⁰

Facing many of the same problems, the Marines did not buy into the clever force redesign concepts of modular transformation and choose not to deactivate their Artillery Regiments. The Marines took a different approach to solving the problem of sustaining core Field Artillery proficiency. First, the Marines maintained a healthy respect for the command responsibilities of the Regimental Artillery Commander, and what he and his organization had to offer to the institutional and operational Marine Corps. As the Division Fire Support Coordinator, and the most qualified leader to advise the Division Commander on Fire Support, the value of his leadership and technical expertise was retained, valued, and exploited.⁴¹ The Marines also viewed the Regimental Commander as a supporting commander. They relied on him for both Artillery and fire support standardization across the force. The fire support standardization was easier to maintain because the Marine MOS 0861 (Fire Support equivalent of the Army’s 13F) remained authorized under the Artillery battalion’s MTOE. In essence, the Artillery Regimental Commander is charged with ensuring that his subordinate battalions are manned, trained, equipped, and certified before the MAGTF task organization. The robust Fire Support framework allowed the USMC to develop very agile and adaptive

leaders. Lastly, Marine commanders have a healthy respect for the institutional investment necessary to produce leaders of all functional branches. They understand the link between the operational force and the institutional force and are unwilling to destroy vital time-tested and proven infrastructure for the sake of a permanent standing combined arms force.

The combination of the recent two Force Design Updates touched on earlier in this paper places the Army leadership at a crossroads. Both FDUs, taken at face value, call into question the very foundations upon which modular transformation is grounded. A closer look reveals the FDUs are less a rejection of transformation and more of an affirmation of time-tested and proven Army principles. These principles include a core belief that commanders are irreplaceable in training and leader development. At the brigade level, commanders provide a critical link between the institutional training domain and the operational training domain.⁴² The importance of this critical link was also underscored by the King and I white paper as the recommendation of highest priority.⁴³ The Army's fundamental principles also include the importance of both proper span of control and the necessity to maintain expert knowledge. The institutional investment to maintain Field Artillery expert knowledge in Army Divisions was the organizational structure of the Division Artillery. It is now apparent in 2013, that the Army's Modular Transformation initiative violated these principles resulting in the negative 2nd and 3rd order effects that motivated three BCT commanders to write "The King and I" white paper. Creative concepts such as training readiness authority (TRA) and training readiness oversight (TRO) are ill suited to replace command authority. We must abandon use of these non-doctrinal terms⁴⁴ and acknowledge their intended

application as only a poor man's way to achieve the next best thing to expert knowledge without having to pay the institutional investment necessary to achieve the real thing. The greatest failure of modularity is not found in the original design, but in the inability by the Army to acknowledge its many inherent shortcomings through an unbiased and honest self assessment.

Over the last ten years the Army has developed a solid cohort of proven combat leaders. It has fielded highly capable BCTs that have accomplished missions that would have been unthinkable even a few years ago. There is no need to undo our hard-won lessons, learned so painfully, by completely undoing everything modular. Regardless of the turbulence of transformation the Army is better postured today to still achieve the kind of force the nation needs for the future. We have accumulated vast experience and hard-earned knowledge of how to employ a fully organized brigade combat team in both high intensity and COIN environments. Our strategy should be to keep our end state objective of highly capable brigade combat teams, while fixing the misalignment of our ways and means on how to produce them. One need not to go far to see how a properly task organized force can come together and give a maneuver commander the full capabilities demanded by the missions that will come our way. We need to look to the Marines.

Conclusion

Today, the Army finds itself at a crossroads. Over the past ten years the Army has invested substantial amounts of money and resources into the creation of modular BCTs, only to find that in so doing a number of personnel development-related shortcomings have been introduced – especially in the areas of skill development and proficiency in the low and medium density MOSs. Where do we go from here? It depends in the belief of core principles. Do we believe commanders are responsible for training⁴⁵ and do we value leadership and the human dimension over one-dimensional organizational structures? If the answer to both questions is yes, then the solution is to reestablish the functional equivalent of the Division Artillery headquarters organizations and restore them throughout the Army. Doing so would constitute a substantial remedy and mechanism to fix all the complex issues raised in “The King and I” white paper.

It is not simply sufficient to go back to the DIVARTY organization of the past, but also the right time to build the Divisional Fires Brigade of the future. It starts with leadership and empowering commanders to create leaders with expert knowledge. Fire Supporters have accomplished extraordinary things in the past 10 years of operations in Iraq and Afghanistan. The Army now has 13Fs in Special Forces Groups that are serving not just as Joint Terminal Air Controller (JTAC) qualified personnel, but JTAC-Es (Evaluators), and JTAC-I(Instructors). The time for Army JTACs in the Divisions is long overdue. Our employment of fires in Afghanistan was good, but use of PGMs proves that there is much work yet to do. The Army must get back to the basics of Field Artillery Organization for combat. This involves better integration of GS fires by BCTs in training and at the Combat Training Centers (CTCs). The model of reinforcing artillery units supporting BCTs at the CTCs was routine 10 years ago. Fires Brigades need to fill

the gap created by the inactivation of Corps Artilleries, organizations once key and essential for the integration of the Reserve Component artillery units. The Army needs to reconnect with the Fires Brigades and Battalions in the National Guard. Here again, the Army should borrow a page from the Marine Corps organizational play book and follow its model for integration of reserve component artillery with active units that has contributed so greatly to its successful employment of reserve GS artillery in OEF.

At this critical time it is more important than ever to address the shortcomings of modular transformation. The Army has the expertise to realign our ways and means. This crisis was years in the making but time is critical. Don Snider tell us, “Quintessentially, conforming a profession’s internal jurisdictions to new demands for either expert knowledge or expertise is the responsibility of its strategic leaders, and no one else... If professions do not adapt, it is usually because their strategic leaders have failed to lead.”⁴⁶ It is time to find our way back to the fundamental principles overlooked in modular transformation. The title “King of Battle” was earned by the Field Artillery through exceptional leadership and core competency in Fire Support. It is time for the Army leadership to do what is right and enable the Field Artillery to return to the proven organization command structure of the Division Artillery headquarters, the DIVARTY.

Endnotes

¹ These ideas were derived from discussions with my SRP adviser, Professor Leonard Fullenkamp, and from one of the best accounts of Army Transformation after Vietnam, the book *Prodigal Soldiers: How the Generation of Officers Born of Vietnam Revolutionized the American Style of War*, by James Kittfield, Simon & Schuster: New York, 1995.

² Once again I am indebted to Professor Fullenkamp for these insights. For several years in the early 1990s, Professor Fullenkamp served as a Chief of Staff Army Fellow, where he worked on the personal staffs of CSA’s Carl Vuono and Gordon Sullivan. As a Fellow he was personally involved in many of the studies and efforts that began as “Louisiana Maneuvers” and eventually what became known as Force XXI.

³ William M. Donnelly, *Transforming an Army at War: Designing the Modular Force, 1991-2005* (Washington, DC, Center of Military History, 2007), 6.

⁴ Ibid, 11.

⁵ LTG James Dubik, retired, at present the incumbent in the Army War College's Omar Bradley Chair, provided insights on the establishment of the Stryker Brigades. Then-Colonel Dubik was personally selected by General Sullivan to organize and train one the original Stryker Brigades organized and equipped as such. I am indebted to General Dubik for these insights.

⁶ William M. Donnelly, *Transforming an Army at War*, 28.

⁷ Ibid, 28.

⁸ Ibid, 29.

⁹ Douglas A. Macgregor, *Breaking the Phalanx: A New Design for Landpower in the 21st Century* (Westport: Praeger Publishers, 1997) 68.

¹⁰ Ibid, 67.

¹¹ ACRs were designed to perform covering force missions forward of the frontal edge of the battle area in a conventional Cold War scenario. They looked to larger formations such as corps and theater army for training and support requirements.

¹² Based on authors experience as a Field Artillerymen in Howitzer Battery, 2nd Squadron, 3d Armored Cavalry Regiment, Ft Bliss Texas, 1994-1995.

¹³ The Army has four main types of Brigade Combat Teams, all of which are modular, deployable, and permanent combined arms forces. A Heavy Brigade Combat Team (HBCT) is an armored/mechanized based force, Infantry Brigade Combat Team (IBCT) is a light infantry based force, and a Stryker Brigade Combat Team (SBCT) is a Medium based force.

¹⁴ Sean MacFarland, Michael Shields, Jeffrey Snow, unpublished White Paper, The King and I: The Pending Crisis in Field Artillery's Ability to Provide Support to Maneuver Commanders, (np:np, 2007).

¹⁵ Ibid, 3.

¹⁶ Organizational Design Paper, Echelons Above Brigade Fires Command Force Design Update, Draft, Version 3, November 27, 2012, 2.

¹⁷ MacFarland, Shields, Snow, The King and I, 2.

¹⁸ Organizational Design Paper, Echelons Above Brigade Fires Command Force Design Update, Draft, Version 3, November 27, 2012.

¹⁹ US Army Fires Center of Excellence and Ft Sill, "Consolidation of Fire Support Personnel in Brigade Combat Team Fires Battalions", memorandum for Commanding General, TRADOC, Fort Sill, Oklahoma, August 9, 2011.

²⁰ Based on an email from Military Analyst, Infantry Warfighters Forum 20 Dec 2011. The Military Analyst consolidated input on the FDU to Consolidate 13Fs into the Field Artillery Battalions of the IBCT. The consolidated input from 13 of 20 IBCT Commanders non-concurring with the FDU.

²¹ Organizational Design Paper, Echelons Above Brigade Fires Command Force Design Update, Draft, Version 3, November 27, 2012, 2.

²² Don M. Snider and Lloyd J. Matthews, *The Future of the Army Profession* (Boston, Custom Publishing, 2005) 299.

²³ US Department of the Army, Mission Command, Army Doctrine Reference Publication (ADRP) 6-0 (Washington, DC: US Department of the Army, May 2012) 2-16.

²⁴ MacFarland, Shields, Snow, *The King and I*, 3.

²⁵ Firing Incident Reports from the Live Fire Division, National Training Center, 1999-2002.

²⁶ MacFarland, Shields, and Snow, *The King and I*, 3.

²⁷ Shirley Dismuke, "Shaping the Future Force: An Overview of the Presentation by GEN Robert Cone, *Fires*, July/August 2012, 21.

²⁸ Authors experience as a Fires Battalion Commander in 4th Brigade 101st Airborne Division (AASLT), Operation Enduring Freedom August 2010 to August 2011.

²⁹ Based on authors experience employing Excalibur munitions in Operation Enduring Freedom, Afghanistan 2010-2011 and discussions with LTC Joe Hilbert, current commander of 5-3 Field Artillery (HIMARS), 17th Fires Brigade, and COL Bob Agans, former commander of 3-27 FA (HIMARS), 18th Fires Brigade.

³⁰ Data provided by TRADOC Capabilities Manager, BCT Fires, US Army Fires Center of Excellence, Ft Sill, OK.

³¹ Gene Meredith, David Moser, Andrew Zikowitz, Daniel Hallagin, A Current Assessment of Excalibur Employment in Afghanistan, *Infantry Magazine*, April-August 2012, 18.

³² MacFarland, Shields, Snow, 3.

³³ *Ibid*, 3.

³⁴ Shirley Dismuke, "Shaping the Future Force: An Overview of the Presentation by GEN Robert Cone, *Fires*, July/August 2012, 19.

³⁵ Don M. Snider and Lloyd J. Matthews, *The Future of the Army Profession*, 23.

³⁶ MacFarland, Shields, and Snow, 3.

³⁷ MacFarland, Shields, and Snow, 4.

³⁸ Peter M. Vangjel, Green Tab to Green Tab Fire Support: The BCT Commander's Best Fires Asset, *Infantry*, May/June 2008, 19.

³⁹ Michael D. Grice, Resuscitating the King, *Marine Corps Gazette*, October 2008, 2.

⁴⁰ Ibid, 2.

⁴¹ MG Toney Stricklin (retired), Employment of the M982 in Afghanistan: US Army and Marine Corps Differences, *Fires Journal*, January/February 2012.

⁴² US Department of the Army, Training Units and Developing Leaders, Army Doctrine Publication (ADP) 7-0 (Washington, DC: US Department of the Army, August 2012) 2.

⁴³ MacFarland, Shields, Snow, 3.

⁴⁴ The terms Training Readiness Oversight and Training Readiness Authority are not present in any of the core Army Doctrinal Publications (ADPs) and specifically ADP 6-0 Mission Command.

⁴⁵ US Department of the Army, ADP 7-0 cites the first principle of unit training as "Commanders and other leaders are responsible for training," 5.

⁴⁶ Snider, 607.